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ABSTRACT

This paper reports the progress of an ongoing clinical research project on prevention services for at risk infants of mentally ill mothers. This project extends the prevention focus of early education programs into the mental health field. Previous research findings indicate that maximum preventive effects are achieved when programs (a) begin before the infant is 3 years old and (b) focus on facilitating specific mother-child interactions. Three types of intervention, ranging from a relatively simple nonintrusive format to a more complex multi-faceted format, were proposed in the project. The interventions were designed to improve the use of community resources by target families; to help parents recognize and respond to the child's changing health and safety needs; to help parents recognize and respond to the child's needs for appropriate cognitive, social, and linguistic stimulation; and to foster more adaptive and conflict-free forms of attachment between mothers and infants. Effects of the program are evaluated by means of videotape observations, interviews, and a battery of assessment devices. Pre- and posttest measures of a variety of child-parent outcomes are assessed by an evaluation team blind to the intervention used with each family. Entrance requirements for participants are noted, and changes in the program due to community pressures and research needs are described. (Author/DB)

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Progress Report:

Prevention Service Programs for Infants of Mentally-Ill Mothers

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Prevention Service Programs for Infants of Mentally-Ill Mothers*

Abstract

Prevention services for mentally-ill mothers with infants are described. The children, aged birth to eight months, are assessed over a period of two years. Measures of cognitive, social, and language development are taken, and particular attention is paid to mother-child relationships. Two prevention services for 30 families are offered: a) home-visiting by paraprofessionals, and b) a combination of parent groups and home-visiting by professionals. Evaluations at six-month intervals include home-videotaping. The research research assess program impact on child and family, refines measures specific to such assessments, and develops prevention program models appropriate to high-risk children.

Overview: Mental Illness Prevention

This project extends the prevention focus of early education programs into the mental health field, a field long oriented toward the treatment of the already symptomatic. Education has provided substantial research and experience with prevention and early intervention models, while comparable work in mental health is sparse. Notable exceptions are the work of Grunebaum et al (1977) and Fraiberg and coworkers (1976).

To date a number of comprehensive early intervention programs, primarily for families eligible for AFDC or Head Start, have been evaluated longitudinally, and found to produce significant developmental, social, and cognitive gains for preschool children. Bronfenbrenner's (1974) comprehensive report on the findings of these projects produced the following points relevant to the present work:

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- A. Parent intervention was of benefit not only for the target child, but also for younger siblings.
- B. Children involved in a parent intervention program prior to enrollment in preschool showed greater gains in preschool and later school programs.
- C. The effectiveness of parent intervention can be enhanced through parent group meetings designed to provide information and to enhance parents' confidence through mutual support.

In considering the application of these findings to prevention programs for children of disturbed parents, it is clear that for maximum preventive effect programs should begin before age 3, and the focus should be on facilitating specific, positive mother-child interactions.

There are also several questions related to offering such programs to severely disturbed parents, which are not answered by previous research:

- o One of the few projects to present relevant data to this point was a home-visiting program for psychotic mothers of children aged 0 to 5 conducted by Grunebaum and colleagues. A very high rate (12%), were demonstrated in this project with low-income, ex-state hospital patients. In addition, the intervention group children showed modest positive effects on measures of social behavior though not on intellectual measures. Thus, pessimism about program involvement should not extend to all psychotic mothers.
- o A second issue is project staffing. In general, home-visiting early education programs have used community parents as paraprofessional home visitors, and parent-group programs have used social workers as group leaders (e.g. Slaughter, 1979, Radin, 1972). The Fraiberg and Grunebaum projects have also used professional staff. While little note has been taken of this staffing difference in the early education literature, it becomes a seemingly more important variable when designing programs for severely disturbed parents. Lally and Honig (1977) note in their final report on a paraprofessionally staffed project, "A psychiatric social worker ... would have been a welcome addition to the staff" (p.92). Nevertheless, it is clear that the nonprofessionals have been very successful with low-income parents to date.

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- o A third issue relates to how to define the severely disturbed group who should be served by prevention programs. Recent work on genetic risk factors in psychotic disorders has been very promising of future insights relevant to prevention work. However, currently this work is of limited usefulness in program design. Hence, it seems more appropriate at present to define severe disturbance more broadly than psychotic disorder, and to focus on the more general social disabilities, even more than the acute decompensation of psychotic or suicidal episodes which limit their capacity to function effectively as parents.
- o A fourth, more pragmatic consideration is the issue of whether community-based programs are regarded as desirable. While there is much to be said from a research stand-point for looking at children of parents with a particular type of disturbance, such as manic-depression or abusive behavior, narrow program definitions usually entail drawing parents from a wider geographic and diagnostic arena. This in turn works against establishing a program which increases a parent's familiarity with his or her own neighborhood and neighbors. If maladaptive social fears and social isolation are seen as important aspects of severe disturbance, however, a strong case can be made for neighborhood center-based components which develop social networks, however rudimentary.

Clinical and Research Aims

The broad aim of this project is to develop and evaluate prevention services for mentally ill mothers and their infants. To this end three types of intervention, ranging from a relatively simple, nonintrusive format to a more complex, multi-faceted one were proposed. This range of interventions has been adjusted and is different from originally proposed (discussed below).

The aim of the prevention service development component is to design program models and materials which a) can be clearly described and replicated at other sites, b) can be used and evaluated positively by parents and children, and c) are effective in preventing distortions of early development.

The aims to be implemented by the intensive program variations are:

- o To improve the use of community resources by the target families;
- o To help parents recognize and respond to the child's changing health and safety needs and needs for appropriate cognitive, linguistic, and social stimulation;
- o To foster more adaptive and conflict-free forms of attachment between mothers and infants.

The evaluation uses state-of-the-art technology including videotape observations and interviews developed for use in currently ongoing national evaluations of the Child and Family Resource Program (CFRP). The aims of the research are:

- o To evaluate whether a more enriched program, as defined by mental health professional staffing and increased center-based socialization experiences for parents and children, offers greater benefits than a paraprofessional home-visiting program;
- o A more specific aim is the identification of mother-infant pairs who are psychologically "high-risk" for other than biologic/genetic factors. We hope to identify clusters of factors which may be social isolation, poverty, depression and single parenthood. One goal of risk research is to establish more sophisticated, multi-variate criteria for locating those children most at risk. Thus, the research goals of the Family Support Project allow the identification of variables most highly related to risk in the urban, poor mothers and infants in our sample.

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Design

The program operates prevention programs (described below) for mothers and infants. The child, at project entry, is between 0 and 8 months. Fifteen parents are randomly assigned to each of the variations for an 18-month treatment period. Pre and post-measures of a variety of child and parent outcomes are taken and assessed by an evaluation team blind to the family's treatment condition.

Criteria for participation include: history of psychiatric hospitalization, suicidal behavior, reported child abuse (secondary to mental illness), or current, longstanding social isolation or marital instability. We have expanded our criteria to include mothers, who though not manifesting signs of formal psychiatric illness, nevertheless are under significant stress. Thus we have broadened our "net" in response to a sharpening of research intent while recognizing needs of the community.

Because of the pressing need for more research-based criteria for defining high-risk mother-infant pairs, the Family Support Project has apportioned more resources toward the question of defining the risk population and slightly less toward the single goal of evaluating the results of the intervention.

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Program Variations

The project attempted to implement a minimal treatment variation which, from a research perspective, was desirable. Conceptually, the assignment of an ombudsperson to the family who would link the family to existing services appeared a reasonable solution to the ethical problem of having high-risk families randomly assigned to a "no-treatment" group.

During the first six months of the project, it became apparent that Variation I could not be successfully implemented. Variation I was to be a minimal service treatment, implemented by the same staff that performed the home visits planned for Variation II. There were several reasons that Variation I was dropped:

- o Community groups resisted (often strongly) the notion of assigning disturbed families to a minimal service group. This became an issue that could interfere with successful community relations and endanger the recruitment process.
- o The use of the same workers to provide both types of service led to a confounding of treatments and the likelihood that the most needy families in both groups would receive the most attention.
- o From a research comparison perspective, a service-rejection group provided a better opportunity to examine program impact since they would receive only standard community-available services. It is unclear at this time the degree to which self-selection will affect the type of answers that may be forthcoming from the research.

Two comparison groups have been added in place of subjects in Variation I. One is a group of normal, i.e., not symptomatic and not deemed at-risk mothers and infants from the community. These families will be recruited from the Pediatric Clinics. The other group is the treatment rejectors i.e., those who are referred and reject treatment or drop-out. These two comparison groups replace the original comparison group of those who qualify for the project, but who have children too old for inclusion.

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An intensive, home-based parenting support program is offered to families in Variation II. Working-class mothers from the community are hired and trained as home visitors. This service model is based on dual beliefs that parenting skills are better taught by modelling and demonstration and that community parents may be more plausible models than middle-class professionals would be. Initial assessments yield a plan which guides the home visitor in subsequent visits. Basic services offered are: home-visiting, planned in-home child development activities and evaluations, respite care, and referral for other services.

Variation III is the home and center-based program. Additional elements are included in this program: home visitors/group leaders are trained mental health professionals; a parent group and a variety of socialization and educational activities are provided for the parents. This program operates through the neighborhood health centers in two adjoining cities.

All staff in each variation participate in specially-tailored training and benefit from ongoing supervision and education.

Evaluation

Evaluation design and implementation is subcontracted to an independent research firm, Abt Associates, Inc., which is conducting the nation-wide evaluation of the Child and Family Resource Programs (CFRP), which serves as a reference point for this prevention effort. The evaluation is designed to document the relative success of each of the variations. Among the several evaluation measures

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used is home videotaping which has proved successful for CFRP observations. One advantage of videotaping is the usefulness of making reliable clinical judgements based on normal activities of mothers and infants in their home.

The assessment battery includes several measures of maternal mental health and current and past stressors in the life of the mother, as well as measures of child functioning and of mother-child interaction. The battery includes:

- o Global Assessment Scale - measure of maternal mental health shown to be strongly related to child adjustment in middle childhood by Rochester high-risk study.
- o CES-D - self-report measure of maternal depression shown to be strongly related to current stressors, disruptive family history and distant mother-child interaction.
- o Conditions Stress Scale - measure of chronic ongoing stressful life conditions shown to be related to maternal mental health and negative parenting behavior by Stress and Families Project, Harvard Graduate School of Education.
- o Family History Interview - developed by Stress and Families Project and shown to be related to maternal depression and current stressful life conditions.
- o Psychiatric Status Schedule - measure of effective functioning in parental role shown to be related to parental mental health.
- o Denver Pre-Screening - a well-known prevention screening questionnaire assessing infant and toddler development.
- o Bayley Scales of Infant Development - widely used scale provides baseline data on the developmental progress of the infants.
- o Videotape Measures - several rating systems are available for rating in-house videotapes of mother-infant interaction. Of these the following are based: Greenspan system, Tronick, et al ratings, Price ratings and the TIES coding system developed by Dr. Jean Carew. The Ainsworth "strange situation" is also rated, according to standard procedures.

The present data collection plan anticipates a longitudinal study for 50 families distributed in four groups: Variation II home visit families (n=15), Variation III group program families (n=15), service rejection families (n=10), and unreferred families (n=10). All families will participate in the measurement schedule shown in Figure 1.

Figure 1
Data Collection Plan

<u>Data Collection</u>	Program Entry		Child Age	
	A	B	C	D
	<u>0-8 mos.</u>	<u>6-8 mos.</u>	<u>12-14 mos.</u>	<u>20-24 mos</u>
1. Family Intake Interview (Demographic and Social Isolation Questionnaire)	X		X	X
2. Home Videotaping		X	X	X
3. Ainsworth Strange Situation			X	
4. Bayley Infant Development Scales			X	X
5. Structured Observation				X

- A. Program Entry. During the process of enrollment, the Outreach Worker gathers information regarding family demographics, parent and child health, parent support network within the community, and parent child-rearing attitudes. A revised version of this questionnaire covering the same issues will be completed through interview by Abt Associates staff at both 12 and 24-month assessment points.
- B. Child Age 6-8 Months. When the child is 6 months of age, the child's activities in the home will be videotaped for one hour. For children 6 months of age or older at program entry, videotaping will be completed as soon as feasible after program assignment. A second hour of videotape will be gathered when the child is one year of age and a third will be collected at program exit. (20-24 months of age.)

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- C. Child Age 12-14 Months. When the child is approximately 12 months of age, the parent will be requested to bring the child to the project offices. At that time, the child's attachment to the parent will be assessed using the Ainsworth Strange Situation paradigm, the Bayley Scales of Infant Development will be administered, and the information gathered at program entry will be updated. The office visit will take approximately two hours to complete.
- D. Child Age 20-24 Months. At a point just prior to termination of the program for each family (approximately 18 months after project entry), a second visit to the project offices will be scheduled. At that time, a second structured social situation involving the child, parent, and a stranger will be videotaped. The exact setting and activities have not yet been defined, but will require less than a half hour to complete. In addition, the Bayley Scales will be readministered and the demographic and parent activity questionnaire will be updated a final time.

Figure 2 illustrates the evaluation timetable according to child's age and beginning treatment.

Conclusion

This paper has outlined a clinical research project on disturbed mothers and their infants at risk for mental health problems. The process of evaluating services for this population involves compromise, re-evaluation and adjustment of both service delivery and research design. This paper provides a framework for future discussion of the problems and pitfalls of such an undertaking.

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Figure 2

FAMILY SUPPORT PROJECT - TIMETABLE FOR EVALUATIONS

INTAKE (0 - 8 mos.)

home -

<u>Parent</u>	Parent information form	Child Denver Prescreening
	Psychiatric Status Schedule (PSS)	

Age 6 mos.

home -

Videotaping ⁽¹⁾	-Normal mother/child interaction	CES-D - self-report depression scale
		Conditions Stress Scale (CSS)
		Family History Interview
		Global Assessment Scale (GAS)

Age 12-14 mos.

office -

Videotaping ⁽²⁾	-Ainsworth Strange Situation	CHILD
Bayley Scales		

Age 18-26 mos.

(18 mos. in program)

home -

PSS	
CES-D	Mother
Bayley	
Scales	Child

Videotaping - normal mother/child interaction

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Notes

- (1) Videotape rating scales: TIES coding, .
Price Scales, Greenspan Ratings
- (2) Tronick ratings

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